DOROTA, P. P., FRISH, V. F., MAKAROV, A. N.

"New Methods in Borehole Logging of Brown Coal Deposits"

(New Developments in the Methods and Techniques of Geological Exploration) Leningrad, Gostoptekhizdat, 1958. 423 p. (Series: Its: Sbornik trudov 2)

MAKAROV, A.N.; FRISH, V.F.; DOROTA, P.P.

New method for logging boreholes in lignite deposits. Trudy VITR no.1:341-356 '58. (MIRA 12:1)
(Logging (Geology)) (Lignite)

DOROTA, Tadeusz

The Budapest International Fair is an important factor of the development of the Polish-Hungarian economic relations. Musz elet:Suppl.: Lengyelorszag ipara es kulkereskedelme 18 no.12: 1-4 6 Je '63.

1. Lengyel Nepkoztarsasag Budapesti Nagykovetsegenek kereskedelmi tanacsosa.

DOROTJAK D.; ZALCIK, T.

Certain problems of city planning in Central Slovakia. p. 296.

STAVEBNICKY CASOPIS. (Slovenska akademia vied) Pratislav, Czechoslovakia, Vol. 7, no. 5, 1959.

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Uncl.

DOROVATOVSKIY, N.

Solar eclipse. Krestianka 30; No 2:30 F'52.

DOROVATOVSKIY, N., red.; SMIRNOV,Z., tekhn. red.

[Reports of the Second Congress on Problems in Gerontology and Geriatrics] Tezisy dokladov Soveshchaniia po voprosam gerontologii i geriatrii, 2nd. Moskva, Mosk. ob-vo ispytatelei prirody, 1960. 129 p. (MIRA 14:5)

1. Soveshchaniye po voprosam gerontologii i geriatrii, 2nd.
(AGED--CONGRESSES)

DOROVATOVSKIY, N., red.; SMIRNOV,Z., tekhn. red.

[Reports of the Second Congress on Problems in Gerontology and Geriatrics] Tezisy dokladov Soveshchaniia po voprosam gerontologii i geriatrii, 2nd. Moskva, Mosk. ob-vo ispytatelei prirody, 1960. 129 p. (MIRA 14:5)

1. Soveshchaniye po voprosam gerontologii i geriatrii, 2nd.
(AGED--CONGRESSES)

DOROVATOVSKIY, P.

From radio amateur to radio specialist. Radio no.9:10 S '54.
(Ginkin, Georgii Grigor'evich) (MLRA 7:9)

DOROVATOVSKIY, P.; ROGONKOV, N.

Militant trade unions of trade personnel in Petrograd. Sov. torg. no.11:45-47 N '57. (MIRA 10:12)
(Leningrad--Trade unions--History)

DOROVATOVSKIY, P.N.

Russian physician I.V. Grimm as an organizer of medical and sanitary services in Bulgaria. Gig. i san. 24 no.4:41-43 Ap '59. (MIRA 12:7)

1. Iz kafedry organizatsii zdravookhraneniya i istorii meditsiny Leningradskogo sanitarno gigiyenicheskogo meditsinskogo instituta.

(PUBLIC HEALTH, hist.
in Bulgaria, contribution of I.V. Grimm (Rus))
(BIOGRAPHIES,
Grimm, I.V. (Rus))

DOROVATOVSKIY, P.N. (Leningrad)

History of the Leningrad Medical Institute of Sanitation and Hygiene.
Sov. zdrav. 19 no.9:75-80 '60. (MIRA 13:11)

1. Iz kafedry organizatsii zdravookhraneniya i istorii meditsiny Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta.
(SCHOOLS, MEDICAL) (LENINGRAD--MEDICAL COLLEGES)

DOROVATOVSKIY, P.S., redaktor; TARASOV, F.I., redaktor; LARIONOV, G.Ye., tekhnicheskiy redaktor.

[Radio amateurs' receivers constructed by B.N.Khitrov] Radioliubitel'skie priemniki B.N.Khitrova. Pod red. P.S.Dorovatovskogo. Leningrad, Gos. energ. izd-vo, 1952. 45 p. (Massovaia radiobiblioteka, no. 163) (MLRA 7:9)
(Radio--Receivers and reception)

DOROVATOVSKIY, Pavel Sergeyevich; IVANOV, Viktor Mikhaylovich; VASIL'YEV, A.A., red.; KARYAKINA, M.S., tekhn.red.

[Replies to questions of radio amateurs] Otvety na voprosy radioliubitelei. Moskva, Izd-vo DOSAAF, 1960. 142 p. (Radio)

(MIRA 13:7)

SINEGUB-LAVRENKO, A.A., kandidat tekhnicheskikh nauk; DOROVATOVSKIY, V.S.; TARASOVA, L.A.; STASHKOV, G.A.

Method of manufacturing calico printing rollers without pigment. Tekst. prom. 16 no.3:56-57 Mr '56. (MLRA 9:6)
(Calico printing)

DOROVSKAYA, I.F.

Productivity of photosynthesis of self-pollinated lines and interlinear hybrids of corn. Nauch. dokl. vys. shkoly; biol. nauki no.1:145-148 '62. (MIRA 15:3)

1. Rekomendovana kafedroy darvinizma Moskovskogo gosudarstvennogo universiteta im. M.V. Lomonosova.
(PHOTOSYNTHESIS)
(CORN (MAIZE))

DOROVSKAYA, I.F.

Growth of the root system in self-pollinated lines and interlinear hybrids of corn. Nauch.dokl.vys.shkoly; biol.nauki no.4:137-141 '62. (MIRA 15:10)

1. Rekomendovana kafedroy darvinizma Moskovskogo gosudarstvennogo universiteta im. M.V.Lomonosova.
(OSSETIA, NORTH--CORN BREEDING) (ROOTS (BOTANY)

DOROVSKAYA, I.F.

Formation and photosynthetic activity of the assimilating surface of inbred and hybrid corn. Fiziol. rast. 9 no.5:635-638 '62. (MIRA 15:10)

1. North Ossetian Agricultural Institute, Ordjonikidze.
(Corn breeding) (Leaves)

USSR / Cultivated Plants. Fodder Grasses and Edible Roots.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24928

Author : Dorovskaya, T. A.

Inst : Kemerov State Agricultural Experimental Station

Title : A Recent Alfalfa Variety, "Kusbasskaya"

Orig Pub : Byul. nauchno-tekh. inform. Kemerovsk. gos. s.-kh. opytn. st., 1957, No 1, 35-37

Abstract : The recent variety is characterized by a high yield of hay and good seed productivity. The variety was obtained by means of an individual selection of highly productive plants. For 3 years, on the average, the variety mixed with awnless bromegrass, gave

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92

PAYERSHTEYN, V.D.; DOROVSKIKH, A.S.

Mechanizing the production of the vibrated brick wall panels of industrial plants. Trudy BashNIIStroi no.1:210-215 '62.
(MIRA 17:3)

TORGONSKIY, Mikhail Nikolayevich, dots., kand. tekhn. nauk;
DOROVSKOY, Ivan Mikhaylovich, retsenzent; FEDORENKO, Mikhail Fedorovich, retsenzent; LOBACHEV, N.V., red.; PITERMAN, Ye.L., red. izd-va; PARAKHINA, N.L., tekhn. red.

[Principles of construction work] Osnovy stroitel'nogo dela. Moskva, Goslesbumizdat, 1961. 221 p. (MIRA 15:3)
(Construction industry)

Dorovskoy, V.Ye.

VINNIKOV, I.F.; DOROVSKOY, V.Ye; PUZACHEV, S.I.; OL'KHOVOY, V.; BELOUSOV, S.

[Our work experience] Nash opyt raboty. Moskva, Ugletekhizdat, 1953. 31 p. (MLRA 7:1)

1. Mashinist kombayna shakhty imeni S.M.Kirova tresta Nerevetayantratsit kombinata Rostovugol' (for Vinnikov). 2. Mashinist kombayna shakhty "Oktyabr'skaya revolyutsiya" tresta Shakhtantratsit, master uglya (for Puzachev). 3. Prokhodchik shakhty imeni Vorovskogo tresta Shakhtantratsit, Pochetnyy shakhter (for Dorovskoy). 4. Mashinist vrubovoy mashiny shakhty "Novo-Azovskaya" tresta Shakhtantratsit, master uglya (for Ol'khovoy). 5. Perenoschik konveyera shakhty "Komsomol'skaya pravda" tresta Shakhtantratsit, Pochetnyy shakhter (for Belousov). (Coal mines and mining)

DOROZALSKA, Aleksandra

POLAND

LEWANDOWSKI, Anzelm, prof. dr; DOROZALSKA, Aleksandra, dr.

Department of General Chemistry, University (Katedra Chemii Ogolnej Uniwersytetu im. A. Mickiewicza), Poznan - (for both).

Warsaw, Chemia analityczna, No 6, November-December 1965, pp 1261-1264.

"Determination of copper by the impregnation method."

GR[illegible]TOVA, O.I.; DOROZHIN, E.S.

Infrared absorption spectra of complex compounds of bivalent copper with anabasine. Nauch.trudy TashGU no.257.Khim.nauki no.12:44-54 '64.

Infrared spectrum of anabasine. Ibid.:55-63

(MIRA 18:8)

DORZHINKEVICH, I.B., gorny inzh.

Basic technical trends in the planning of shaft equipment in the scope of a general reorganization of the Krivoy Rog Basin. Ugol' Ukr. 5 no.2:19-21 F '61. (MIRA 14:3)

1. Kravbassshakhtoproyekt.
(Krivoy Rog Basin—Shaft sinking)

[redacted]

DOROSHENKEVICH, I.B., inzh.; SHAKHOV, Yu.Ya., inzh.

New standard haulage grifts in ore mines. Mekh. stroi. 8 no.7: 12-13 Jl '64. (MIRA 17:10)

1. Institut Krivbassproyekt.

KULIZADE, Kyazim Novruz Ali ogly; dotsent, kand.tekhn.nauk; DOROZHINSKIY, A.S., red.; GONCHAROV, I.A., red.izd-va.

[Collection of examples and problems for the course "Electric equipment in the petroleum industry."] Sbornik primerov i zadach po kursu "Electrooborudovanie neftianykh promyslov." Baku, Azerbaidzhanskoe gos.izd-vo neft.i nauchno-tekhn. lit-ry, 1957. 488 p. (MIRA 11:1)
(Electric machinery) (Oil fields--Equipment and supplies)

DOROZHINSKIY, V.B.; KUDRYASHOV, Yu.B.; LOMOVA, M.A.

Distribution of carbon-labeled oleic acid in the animal organism. Nauch.dokl.vys.shkoly; biol.nauki no.3:77-80 '65.

(MIRA 18:8)

1. Rekomendovana kafedroy biofiziki Moskovskogo gosudarstvennogo universiteta.

S/057/63/033/003/014/021
B104/B180

AUTHORS: Doroshkin, A. A., and Petrov, N. N.

TITLE: Ion-electron emission of some metals in the presence of hydrogen

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 33, no. 3, 1963, 350 - 355

TEXT: The ion-electron emission from targets of tungsten, molybdenum, nickel and copper is studied under the action of fast hydrogen ions. The hydrogen pressure near the targets, which had previously been vacuum annealed, was varied between 10^{-6} and 10^{-1} mm Hg. It is shown that when these metals are bombarded with H_1^+, H_2^+ and H_3^+ ions of up to 20 kev the electronemission is determined only by the number of incident atomic particles, independent of whether they form a molecule or move independently to the target surface. The ion-electron emission from W, Mo and Ni does not depend on hydrogen pressure between

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S/057/63/033/003/014/021
B104/B180

Ion-electron emission of ...

10^{-6} and $(4-6)\cdot10^{-2}$ mm Hg. The emission from cold copper increased with hydrogen pressure was above 10^{-3} mm Hg. There are 6 figures.

ASSOCIATION: Leningradskiy politekhnicheskiy institut im. M. I. Kalinina (Leningrad Polytechnic Institute imeni M. I. Kalinin)

SUBMITTED: February 20, 1962 (initially)

May 9, 1962 (after revision)

Card 2/2

L 25114-65 EPA(s)-2/EWT(m)/EPF(n)-2/EWP(b)/EWP(t) Pt-10/Pu-4 IJP(c) JD/JG

ACCESSION NR: AP5003422 S/0181/65/007/001/0118/0122

AUTHORS: Dorozhkin, A. A.; Petrov, N. N.

TITLE: Potential extraction of electrons from tungsten and molybdenum by mercury ions

SOURCE: Fizika tverdogo tela, v. 7, no. 1, 1965, 118-122

TOPIC TAGS: tungsten, molybdenum, electron emission, potential emission, temperature dependence

ABSTRACT: The purpose of the investigation was to determine the ion-electron emission induced from tungsten and molybdenum by positive singly-charged mercury ions over a wide target temperature range. The mercury ions had energies from 500 to 2800 eV, and the measurement procedure was that described by one of the authors elsewhere (Petrov, FTT v. 2, 949, 1960). A monokinetic ion beam, periodically modulated in intensity with a specified frequency, was di-

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rected to the target. A tank circuit tuned to the same frequency served as a load for the measured currents of primary and secondary particles. A block diagram of the test setup is shown in Fig. 1 of the enclosure. The system made it possible to measure the primary current of the particle bombarding the target, the current in the collector circuit (secondary particle current), and the current in the circuit of a screen located behind the target to control the ions striking it. A vacuum of not less than 2--3 x 10^{-7} mm Hg was maintained. The results show that only potential extraction of the electrons is produced by the bombarding ions in pure tungsten and molybdenum targets; this extraction depends noticeably on the temperature of the metal. Neither kinetic nor potential extraction of the electrons from tungsten by Ar^+ ions with energy from 0.5 to 8 keV depends on the temperature over the entire range from 300 to 2100K. The data obtained are discussed from the point of view of a two-stage extraction of the electron, consisting of resonant neutralization with a subsequent de-excitation by means of the Auger

L 25114-65

ACCESSION NR: AP5003422

3

effect. "The authors thank Professor M. A. Yeremeyev for continuous interest in the work and for advice, and to student M. S. Lekakh for technical help." Orig. art. has: 5 figures.

ASSOCIATION: Leningradskiy politekhnicheskiy institut im. M. I. Kalinina (Leningrad Polytechnic Institute)

SUBMITTED: 27Jun64 ENCL: 01 SUB CODE: NP, EM

NR REF SOV: 008 OTHER: 005

Card 3/4

L 36319-66 EWT(l)/EWT(m)/EWP(t)/ETI IJP(c) AT/WW/JD/HW/JG

ACC NR: AP6015787 (A,N) SOURCE CODE: UR/0048/66/030/005/0868/0869

AUTHOR: Dorozhkin, A. A.; Petrov, N. N.

ORG: Leningrad Polytechnic Institute im. M.I.Kalinin (Leningradskiy politekhnicheskiy institut)

TITLE: Dependence of the ion-electron emission of some metals on the hydrogen pressure /Report, Twelfth All-Union Conference on the Physical Bases of Cathode Electronics held in Leningrad 22-26 October 1965/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 5, 1966, 868-869

TOPIC TAGS: electron emission, ion bombardment, hydrogen ion, gas pressure, copper, nickel, molybdenum

ABSTRACT: The electron emission due to bombardment with 8.4 keV H_2^+ ions of Mo, Ni, and Cu has been measured at room temperature and 1100° K, and at H_2 pressures from 10^{-6} to 0.3 mm Hg. The residual gas pressure did not exceed 3×10^{-8} mm Hg. The H_2^+ ion beam was produced with the aid of a gas discharge ion source and a magnetic mass monochrometer described elsewhere by the authors (Zh. Tekhn. fiz., 33, 350 (1963)). The metals were subjected to a preliminary high temperature anneal. The electron emission of Mo was found to be independent of the H_2 pressure at both investigated temperatures. The emission of Ni and Cu was independent of pressure at pressures below about 0.01 mm

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ACC NR: AP6015787

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Hg. At room temperature the emission of Ni was independent of pressure at all pressures investigated, and at 1100° K it decreased to 65% of its high vacuum value at 0.3 mm Hg. At room temperature the emission of Cu increased to 280% of its high vacuum value at 0.3 mm Hg, and at 1100° K it decreased to 60% of its high vacuum value at 0.3 mm Hg. It is suggested that the temperature dependence of the ion-induced electron emission is associated with the character of the chemisorption of H_2 onto the metal surface. The authors thank M.A.Yeremeyev for his interest. Orig. art. has: 2 figures.

SUB CODE: 20/ SUBM DATE: 00/ ORIG REF: 001/ OTH REF: 000

Card 2/2

COUNTRY : USSR
CATEGORY : Cultivated Plants. Grains. Leguminous Grains. Tropical Cereals.
ABS. JOUR. : [illegible], No. 1, 1959 No. 1689
AUTHOR : Voronkin; Opelenko
INST. :
TITLE : Necessity for the Treatment of Corn Seeds with Growth Stimulating Agents.
ORIG. PUB. : Sel'skaya entsiklopediya Belorussii, 1958, No.4, 13
ABSTRACT : No abstract

CARD: 1/1

89275
S/181/61/003/001/007/042
B102/B212

26.2312

AUTHORS: Petrov, N. N. and Dorozhkin, A. A.

TITLE: Extraction of electrons from tungsten by positive ions

PERIODICAL: Fizika tverdogo tela, v. 3, no. 1, 1961, 53-60

TEXT: The effects of several factors on the ion-induced electron emission, especially those of mass and energy of ions and also of the structure of the electron shell, have not been investigated too well. The present paper is a contribution to those problems. The studies have been conducted with a mass spectrometer having a magnetic field with 90° sectors. The ion source was in one focus and the target in the other, surrounded by a spherical collector. The target was bombarded with He^+, Ne^+, Ar^+, N_1^+, N_2^+, and Ca^+ ions. The results of these measurements are illustrated in diagrams which show the coefficient γ as a function of energy. Inert gas ions show a very distinct effect of the surface purity of the target. While the curve $\gamma(E)$ for a cold target increases rapidly as E increases, the curves obtained for a hot target show a smooth increase. In general,

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Extraction of electrons from...

it was found that curves started with a lesser slope for cleaner surfaces. Under optimum conditions with respect to purity, the slopes of the $\gamma(E)$ curves were nearly equal for all three inert gas ions, and the curves were practically linear; γ-values were higher for heavy ions than for light ones. $\gamma(E)$ curves obtained for atomic and molecular nitrogen ions nearly coincided, and in the range of 1-10 kev they were linear. The slope of these curves decreased monotonically for higher energies; at $E<10$ kev the inclination corresponds to about 0.135 electrons/ion.kev, which is larger than for all inert gas ions. In the case of a cold target, $\alpha(E)$ curve of calcium ions was also higher and steeper than that for a hot target (α is the ratio of target-collector current to the current of primary ions); for a high collector potential, $\alpha = \gamma$). The slope of the straight line $\alpha(E)$ for a pure target was found to be 0.073 electrons/ ion.kev. The ion-induced ion emission has also been investigated. At $E \gtrsim 3$ kev the connection between coefficient K and ion energy is very weak, and K is not larger than 10%. The maximum value of K ($\simeq 9.5\%$) has been reached for calcium ions. At lower energies, K increased with decreasing E (at E = 1 kev, K = 11.5%). All experiments have been made with tungsten targets and were found to be easily reproducible. The results are

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S/181/61/003/001/007/042
B102/B212

Extraction of electrons from...

discussed in detail. The authors come to the conclusion that the following simple rule holds for ions of neighboring elements of the zeroth and first group of the periodic system: At E = const, the less electrons are ejected, the higher is the atomic number of the ion. This is not valid for ions of other groups. This can be explained by the difference of the electron shells. The less electrons are in a shell, the more energy can be transferred to each of them (at a given ion energy) and, therefore, these electrons will be ejected earlier. The authors thank Professor M. A. Yeremeyev for interest and discussions. U. A. Arifov and R. Rakhimov are mentioned. There are 6 figures and 14 references: 9 Soviet-bloc and 5 non-Soviet-bloc.

ASSOCIATION: Politekhnicheskiy institut im. M. I. Kalinina Leningrad
(Polytechnic Institute imeni M. I. Kalinin, Leningrad)

SUBMITTED: May 27, 1960

Card 3/3

3599. Skon, S. A., and Doroshkin, I. Y., The coefficient of lateral deformation (in Russian). Tr. Mosk. aviats. tekhnolog. in-ta no. 25, 111-118, 1954; Zh. Mekh. 1956, Rev. [illegible]

A simplified method is [illegible] for [illegible] of lateral deformation μ [illegible] general form of the equation [illegible]

$$\mu = \frac{1}{k-1}\left(1 - \sqrt{\frac{1+\vartheta}{k}}\right) \qquad (1)$$

where ϑ is the relative volume. Assuming for relatively small deformations

$$k = \sqrt{1 + 2\epsilon_{11}} \approx 1 + \epsilon_{11}$$

authors find that Eq. (1) can be simplified:

$$\mu = \frac{1}{\epsilon_{11}}\left(1 - \sqrt{\frac{1+\vartheta}{1+\epsilon_{11}}}\right) \qquad (2)$$

For very small deformation

$$\mu = 0.5 - \frac{\vartheta}{2\epsilon_{11}} \qquad (3)$$

In consideration of the incompressibility of the material

$$\mu = \frac{1}{\epsilon_{11}}\left(1 - \frac{1}{\sqrt{1+\epsilon_{11}}}\right)$$

DOROZHKIN, M. [DAROZHKIN, M.]; RAMNEVA, Z. [Ramneva, Z.], kand.sel'skokhozyaystvennykh nauk

Comparative study of the virulence of different races of Phytophthora infestans (De Bary) on potatoes. Vestsi AN BSSR Ser.biial.nav. no.4: 31-36 '58. (MIRA 12:4)

1. Chlen-korrespondent AN BSSR (for Dorozhkin).
(Potatoes--Diseases and pests)
(Fungi, Phytopathogenic)

DOROZHKIN, M.A. [Darozhkin, M.A.], akademik; GORLENKO, S.V. [Harlenka, S.V.], kand.sel'skokhoz.nauk

Effectiveness of chemical methods in controlling corn diseases. Vestsi AN BSSR.Ser.biial.nav. no.2:5-11 '59. (MIRA 12:9)

1. Akademiya sel'skokhoz.nauk BSSR; chlen-korrespondent AN BSSR (for Dorozhkin).
(WHITE RUSSIA--CORN (MAIZE)--DISEASES AND PESTS)
(FUNGICIDES)

DOROZHKIN, M.A. [Darozhkin, M.A.]; STREL'SKAYA, O.Ya.

Biological characteristics of fungi producing the anthracnose of flax in White Russia. Vestsi AN BSSR. Ser. biial. nav. no.3:12-18 '61. (MIRA 14:10)

(WHITE RUSSIA--ANTHRACNOSE)
(FLAX--DISEASES AND PESTS)

DOROZHKIN, M.A.; STREL'SKAYA, O.Ya.

Resistance of flax varieties to anthracnose. Dokl. AN BSSR 5 no.11:523-524 N '61. (MIRA 15:1)

1. Belorusskiy nauchno-issledovatel'skiy institut plodovodstva, ovoshchevodstva i kartofelya.
(Flax--Disease and pest resistance)
(White Russia--Anthracnose)

DOROZHKIN, M. D.

"The Influence of External Conditions Upon the Post-Embryo Development of Shadrinsk Geese," Dokl. AN SSSR, 70, No.2, 1950

Inst. Animal Morphology im. A. N. Severtsov, AS USSR

DOROZHKIN, N.A.

Development of mycology and phytopathology in the White Russian S.S.R. Trudy VIZR no.23:226-233 '64. (MIRA 19:2)

DUBOVSKIY, N. A.,

"Regional Characteristics of Potato Diseases in Belorussian S.S.R. and Control Measures in the Second 5-year Plan," Biulleten'VII Vsesoiuznogo S"yezda po Zashchite Rastenii v Leningrade 15-23 Noiabria 1932 Goda, no.7, 1932, pp. 26-27. 423.92 V96

So: SIRA-S1-90-53, 15 Dec. 1953

DOROZHKIN, N. A.,

Regional Characteristics of Potato Diseases in Belorussian SSR, Publishing House of the Belorussian Academy of Science, Minsk, 1933, 175 pp.
464.045 D73

So: SIPA-S1-90-53, 15 Dec 1953

DOROSHKIN, N. A.

The Struggle Against Potato Diseases, Publishing House of the Belorussian Academy of Science, Minsk, 1934, 15 pp 464.045 D73S

So: SIRA -S1 -90-53, 15 Dec. 1953

DOROSHKIN, N. A.,

Diseases of Potatoes and Measures of Combatting Them, Western Oblast State Publishing House, Moscow, 1934, 78 pp. 464.045 D738

So: SIRA- S1-90-53, 15 Dec. 1953

DOROZHKIN, N. A.

Brief Instructions for the Application of the Preparation 'ZD' in Combatting Phytophthora of Potatoes, Publishing House of the Belorussian Academy of Science, Minsk, 1935, 13 p. 464.045 D73K

So: SIRA - S1-90-53, 15 Dec. 1953

DOROSHKIN, N. A. (Editor)

Powdery Scab of Potato, a Collection of Articles, Publishing House of the Belorussian Academy of Science, Minsk, 1936, 131 pp. 464.1 M66

So: SIRA S1-90-53, 15 Dec. 1953

DOKUCHIN, N. A.

"Results of Seven Years Study of Powdery Scab of Potatoes," in Powdery Scab of Potato, A Collection of Articles, Publishing House of the Belorussian Academy of Science, Minsk, 1936, pp. 5-35. 464.1 M66

So: SIRA-S1-90-53, 15 Dec. 1953

DOROZHKIN, N.A. I SHARIKOV, K.E.

42475. O Nekotorykh Formakh Porazheniya Rakom (Synchytrivm) Endobioicvm Klubney Kartofelya. Izvestiya Akad. Nauk. PSSK, No. 4, 1948, S. 77-85

DOROZHKIN, N. A.
25722

Formy Porazheniya Kartofelya Rakom. Po Nabliyudeniyam Otd. Fitopatologii I Mikologii Botan. In-Ta AN BSSR. Sad I Ogorod, 1948, No. 7, S. 69-71

SO: LETOPIS NO. 30, 1948

DOROZHKIN, N.A.

DOROZHKIN, N.A. "Fungoid diseases of the kok-sagyz in the Belorussian SSR", Uchen. zapiski (Belorus. gos. un-t), Issue 7, 1948, p. 134-39

SO: U-3261 10 April 53 (Letpis 'Zjurnal 'Nykh Statey no. 11, 1949)

DOROZHKIN, N. A.

27230. DOROZHKIN, N. A. - Osobennosti razvitiya i rasprostraneniya gribnykh bolezney sel'skokhozyaystvennykh kul'tur na torfyanykh pochvakh i organizatsiya mer bor'by s nimi. V sb: K voprosu osvoeniya i razvitiya proizvodit. Sil. Polesya. Minsk, 1949, s.74-86
Shcherbinovskiy, n. Chto ya videl u michurina v kozlove i u morgana v kalifornii.- Sm. 27018

SO: Letopis' Zhurnal'nykh Statey, Vol. 36, 1949

DOROZHKIN, N. A.

27230

Osobyennosti Razvitiya I Rasprostranyeniyagribnykh Bolyeznyey Syel'skokhozyaystvyennykh Mul'tur Na Torfyanykh Pochvakh I Organizatsiya Myer Bor'by S Nimi V Sb: K Voprosu Osvoyeniya I Razvitiya Lrolzvodit. Sil. Lolyes'ya. Minsk. 1949, S. 104-16
Shyerbinovskiy N. Chto Ya Videl U Michurina V Kozlovye I U Morgana V Kalifornii. Sm. 27018

SO: LETOPIS NO. 34

DOROZHKIN, N. A.

36334 Kul'tura kartofelya na osushennykh torfyanikakh. Izvestia akad. Nauk. Bssr, 1949, No. 5, 129-37

SO: Letopis' Zhurnal'nykh Statey, No. 49, 1949

DOROZHKIN, N.A., professor, doktor sel'skokhozyaystvennykh nauk.

Increasing the disease resistance of potatoes. Sbor.nauch.trud. Inst.biol.AN BSSR no.1:9-23 '50. (MLRA 9:1)
(Potatoes--Diseases and pests)

DOROZHKIN, N. A.

"Black Fallow as a Means of Combating Potato Canker", Iz. Ak Nauk Belours SSR, No. 1, pp 13-40, 1951.

DOROZHKIN, N. A.; SHARIKOV, K.Ye., kandidat biologicheskikh nauk.

Biology of the potato wart disease and methods of combating it.
Sbor.nauch.trud.Inst.biol.AN BSSR no.2 : 3-12 '51. (MLRA 9:1)

1.Chlen-korrespondent AN BSSR.

(Potato wart)

1. DOROZHKIN, N.A., KLEYNERMAN, Z.Ya.

2. USSR (600)

7. "A Biothermic Method of Disinfecting Manure of Synchytrium endobioticum. (From the Works of the Minsk Science-Research Potato Canker Station)", Izvestiya Akad. Nauk Belorus. SSR (New of the Akad Sci Belorussian SSR), No 2, 1951, pp 101-104

9. Mikrobiologiya, Vol XXI, Issue 1, Moscow, Jan-Feb 1952, pp 121-132. Unclassified.

DOROZHKIN, N.A., professor.

Chief measures in combating potato diseases. Sber.nauch.trud.Inst.biol. AN BSSR no.3:30-38 '52. (MLRA 9:2)

1.Chlen-korrespondent AN BSSR.
(Potatoes--Diseases and pests)

Dorozhkin, N. A.

USSR

Determination of the viability of winter sporangia of the potato wart, Synchytrium endobioticum. N. A. Dorozhkin and S. V. Gorlenko. *Doklady Akad. Nauk S.S.S.R.* 88, 489–92(1953).—Living spores of *S. endobioticum* can be distinguished from dead spores by the fact that hypertonic solns. plasmolyse living spores only. The most effective agent was a 30% soln. of NH_4NO_3. Zoöspores killed by boiling for 2 hrs. or by treating with 40% formalin were not plasmolysed. A high percentage of spores from recent infections or from sporangia discharged naturally into the soil were plasmolysed by NH_4NO_3 (94.8% and 93.4%, resp.). Only 73.9% of the spores from infections 4 years old were plasmolysed. Other agents tested included glucose, urea, K_2SO_4, $Ca(NO_3)_2$, KNO_3, KCl, and NaCl. Mixts. contg. equal proportions of 2 salts, the total concn. of the soln. being 30%, were either less effective or no more effective than NH_4NO_3 alone. The tests could be made at any season without losing validity. Nellie M. Payne

DOROZHKIN, N.A.

Review of Applied Mycology
Vol. 33 Mar. 1954

(2)

Dorozhkin (N. A.). Агротехнические способы борьбы с раком Картофеля. [Agricultural methods of controlling Potato wart.]—Докл. Акад. сельскохоз. Наук Ленина [*Rep. Lenin Acad. agric. Sci.* = *Proc. Lenin Acad. agric. Sci.*], 18, 7, pp. 3–6, 1953.

Studies on the control of potato wart [*Synchytrium endobioticum*] at the U.S.S.R. Academy of Sciences [see preceding abstracts] have shown that seed tubers produced in the summer have higher wart resistance, 20th to 25th June being the most suitable period for summer planting. Leaving the field fallow encouraged the growth and eventually the death of winter zoosporangia by creating temperature and air conditions favourable to their development.

DOROZHKIN, N.A.

The influence of microelements on yield of potatoes and their resistance to disease. N. A. Dorozhkin and A. I. Kustova. *Zemledelie* 3, No. 6, 66-70(1955).—Two kg. H_3BO_3, 40 kg. $MgSO_4$, 6 kg. $CuSO_4$, 20 kg. $KMnO_4$, and 2 kg. B-Mg fertilizer were added before planting. The tops were sprayed during the growing season with solns. of B 0.02, Mg 0.3, Cu 0.02, Mn 0.01, and B-Mg fertilizer 0.01%. $CuSO_4$ seems to speed up the sprouting by 5 days and the B-Mg fertilizer by 4 days. Flowering was also advanced by 5-6 days. The microelements applied in the form of a spray have retarded the appearance of rhizoctonia, phytoptera by 9-13 days. The degree of infection was also reduced, especially by the $CuSO_4$ and $KMnO_4$. Yields and starch content have also been increased. I. S. Ioffe

(1)

Dorozhkin, N.A.

Effect of nonroot fertilizing with microelements on the disease-resistance and yield of potatoes. N. A. Dorozhkin and A. I. Kustova. *Izvest. Akad. Nauk Latviis. S.S.R.* 1955, No. 4, 47–56(in Russian); cf. *C.A.* 49, 14252a.—In a 2-year expt. potatoes were cultivated in a normally fertilized (org. manure and full NKP) podzol soil with the addn. of the following microelements: H_3BO_3 2, $MgSO_4$ 10, $CuSO_4$ 6, $KMnO_4$ 20, and a Mg-B fertilizer 2 kg./ha.; from the same microelements the spraying solns. of the concns. of 0.02, 0.3, 0.02, 0.01, and 0.15%, resp., have been prepd. and used for spraying the potato plants during the vegetative growth (just after sprouting and before full closing of the leaves). In all instances the plant treatment with the microelement sprays, or by applying the microelements around the roots, the root-nutrition increased the potato yield and the tuber resistance against *Hypochnus solani*, *Alacrosporia solani*, and *Phytophthora infestans*. Cu and Mn showed the greatest effects. The amt. of starch in the tubers increased approx. by 2% (from 11.0–13.5 to 14.4–15.8%) by the applications of the Cu and Mn supplements; in this respect Mg was nearly without any effect while B decreased the starch content of the tubers (to 11.3–12.8%). All microelements increased the vegetative growth and development of the plants; postponed (by 6–13 days) the appearance of the leaf sicknesses; accelerated the time of the plant budding and flowering; increased the tuber qualities for the vegetative reproduction; and increased the storage life of the tubers. These effects of the microelements increased further when the treatments were repeated in the 2nd year by using the exptl. tubers from the previous year as the seed material.

E. Wierbicki

DOROZHKIN, N.A.; KUSTOVA, A.I.

Experiments with and observations of sclerotiniose in White Russia
Uch.zap.BGU no.26:122-135 '56. (MLRA 10:9)
(White Russia--Fungi, Phytopathogenic) (Lupine--Diseases and pests)

Country : USSR
Category : Plant Diseases. Diseases of Cultivated Plants.

Abs Jour. : Ref. Zhur.-Biologiya No. 11, 1958. No. 49260

Author : Darozhkin, N.A.; Ramneva, Z.I.
Institute : Not given
Title : Aerial Spraying in Potato Phytophthora Disease Control

Orig. Pub.: Sel'sk. gaspadarka Belarusi, 1957, No. 5, 17

Abstract : Spraying with a 0.1 - 0.2% solution of $CuSO_4$ 8-10 days after the appearance of sprouts and then once more in 10 days delays the appearance of the phytophthora infection by 5-13 days, cutting the tuber disease rate by 2/3 to 3/4, and increases the yield by 40 - 63 centners per ha. Aerial spraying is recommended: 1) on sprouts with a 0.1% solution of $CuSO_4$ at the rate of 100-200

Card: 1/2

DOROZHKIN, N. A.

USSR/Diseases of Plants. Diseases of Cultured Plants O-3

Abs Jour : Ref Zhur-Biol., No 1, 1958, 1903

Author : Dorozhkin N. A., Gorlenko S. V., Remneva Z. I.
Inst : Not given
Title : The More Prevalent Corn Diseases in Belorussian SSR.

Orig Pub : V sb: Kukuruza v B S S R. Minsk, AN BSSR, 1957, 372-376

Abstract : No abstract

Card 1/1

DOROZHKIN, N.A., prof., red.; MISHANOVA, Ye.A., red.; BELEN'KAYA, I.Ye., tekhred.

[Diseases of agricultural crops in White Russia; transactions of the Conference on Plant Protection, held in Minsk, October 14-18, 1957] Bolezni sel'skokhoziaistvennykh kul'tur BSSR; iz materialov nauchno-tekhnicheskogo soveshchaniia po zashchite rastenii, sostoiavshegosia 14-18 oktiabria 1957 g.v g. Minske. Sbornik statei pod red. N.A.Doroshkina. Minsk, 1958. 185 p. (MIRA 12:4)

1. Minsk. Universitet.
(White Russia--Plant diseases)

DOROZHKIN, N.A. [Darozhkin, N.A.]

Results of phytopathological research in the White Russian S.S.R.
Vestsi AN BSSR Ser. biial. nav. no.1:55-61 '58. (MIRA 11:5)

1.Chlen-korrespondent AN BSSR.
(White Russia--Plant diseases--Research)

DOROZHKIN N.A.

MALININ, S.N.; LUPINOVICH, I.S.; MOLOCHKO, I.S.; ABRAMCHUK, A.P.; ALEKSEYEV, Ye.K.; AL'SMIK, P.I.; AMBROSOV, A.L.; ANDREYEVA, N.M.; ANOKHIN, A.N.; AFONIN, M.I.; BABOSOV, M.M.; BALOBIN,V.N.; BARANOVSKIY, A.K.; BEZDENKO, T.T.; BEL'SKIY, B.B.; BOBKOVA, A.F.; BOL'SHAKOVA, V.P.; BULGAKOV, N.P.; VAGIN, A.T.; BIL'DFLUSH, R.T.; VIL'CHINSKIY, A.D.; VLASOVA, K.S.; VOYTKO, D.I.; VOLUZNEV, A.G.; GABYSHEV, M.F. [deceased]; GAYKO, A.A.; GALASHEV, M.A.; GORECHLYAD, Kh.S.; GARKUSHA, I.F.; GOSTILOVSKAYA, M.N.; GORBUNOVA, N.N.; GORSKIY, N.A.; GORFINKEL', Z.Sh.; GRUBILKO, N.P.; GUSAKOV, V.A.; GUDAYKIN, A.I.; DANILOVICH, A.F.; DEMENT'YEV, V.A.; DENISOV, Z.N.; DOROZHKIN, N.A.; DUBOV, A.B.; DUBOVSKIY, Ya.K.; YEVTIKHIYEV, B.Ye.; ZHARIKOV, I.S.; ZHILIN, A.P.; ZHOLNEROVICH, A.M.; ZHURAVEL', B.N.; ZABELLO, D.A.; ZAKHARENKO, G.D.; ZUBETS, V.M.; IVITSKIY, A.I.; KACHURO, I.M.; KEDROV-ZIKHMAN, O.K.; KIDALINSKIY, V.A.; KIPENVARLITS, A.F.; KOVALEVSKIY, G.T.; KOVAL'CHUK, P.P.; KOZHANOV, K.Ya.; KOZLOVSKIY, I.Ye.; KOCHETOVA, Z.N.; KRIVODUBSKIY, I.P.; KUDRYAVTSEV, S.F.; KUSTOVA, A.I.; LAPPO, A.I.; LARIONENKO, V.B.; LASHKEVICH, G.I.; MAL'CHEVSKIY, V.I.; MAN'KO, N.F.; MARKOVETS, A.F.; MATSEPURO,M.Ye.; MEDVEDEV, A.G.; MEL'TSER, Ya.D.; MOISEYEV, I.G.; MUSORIN, V.V.; MUKHIN, N.D.; NAGORSKAYA, Ye.D.; NALIBOTSKIY, S.B.; NIKOLAYEVA, Yu.N.; NEDOLUGOV, I.T.; ORLOVSKIY, I.A.; ORLOVSKIY, K.P.; PANKEVICH, A.A.; PESKIN, A.L.; PROKOPOV, P.Ye.; PUSHKAREV, I.I.; RAZMYSLOVICH, I.R.; RAZUMENKO, A.V.; REMNEVA, Z.I.; RINKIS, V.A.; ROVDO, A.I.; ROGOVOY, P.P.; ROZENBLYUM, B.M.; RYZHMANOV, A.G.; RUSINOV, A.A.; SAVCHENKO, A.I.; SAPUNOV, V.A.; SAFRONOV, I.P.; SVIRSKIY, Ya.N.; SEVERNEV, V.P.; SERGEYEV, I.V.; SEMENOV, A.L.; SIDORENKO, G.M.;

(Continued on next card)

MALININ, S.N.---(continued) Card 2.
SKOROPANOV, S.G.; SKRIPNICHENKO, L.A.; SMIRNOV, T.Ye.; STAROVOYTOV, K.T. [deceased]; STRELKOV, I.G.; SUSLOV, V.P.; SUKHORUKOV, G.Ye.; SYUBAROV, A.Ye.; TIMOSHININ, V.D.; TISHKEVICH, I.I.; TROPASHKO, I.N.; TRIZNO, S.I.; TRIMA, N.K.; TUZOVA, R.V.; TURETSKIY, R.L.; UMANSKIY, M.M.; UR'YEV, I.M.; KHOT'KO, A.I.; KHROBOSTOV, S.N.; TSE-KHANOVICH, P.V.; CHERNYAVSKIY, I.G.; CHULKOVA, Ye.I.; CHUNOSOV, M.N.; SHEMPEL', V.I.; SHIKHALEYEV, N.F.; SHKLYAR, A.Ye.; SHCHERBOV, N.A.; YURGENS, B.A.; YUSKOVETS, M.K.; YAKOVLEV, B.I.; YAKERSON, S.A.; YAROSHEVICH, A.A.; LUTSENKO, M.N., red.; LARIN, V., red.; KALECHITS, G., tekhn.red.

[Measures for increasing agricultural production per 100 hectares of land on collective and state farms of White Russia] Meropriiatiia po uvelicheniiu proizvodstva sel'skokhoziaistvennoi produktsii na 100 gektarov zemel'nykh ugodii v kolkhozakh i sovkhozakh BSSR. Red.kollegiia; I.S.Lupinovich i dr. Minsk, Gos.izd-vo BSSR. Red.sel'khoz. lit-ry, 1959. 601 p. (MIRA 13:4)

1. White Russia. Ministerstvo sel'skogo khozyaystva. (White Russia--Agriculture)

DOROZHKIN, N.A.

Conference of European countries on potato wart. Zashch. rast. ot vred. i bol. 4 no.2:46 Mr-Ap '59. (MIRA 16:5)

1. Chlen-korrespondent AN Belorusskoy SSR.
(Potato wart)

DOROZHKIN, N.A.; CHEKALINSKAYA, N.I.

Development of the rust Uromyces lupinicola Bubak. on various lupine species (Lupinus luteus L., L.angustifolius L., L.polyphyllus Lindl.). Dokl.AN BSSR 4 no.4:179-180 Ap '60. (MIRA 13:10)

1. Institut zemledeliya Akademii sel'skokhozyaystvennykh nauk BSSR.
(Rusts (Fungi)) (Lupine--Diseases and pests)

DOROZHKIN, N.A.; REMNEVA, Z.I.

Methods for determining the strain of the potato late blight pathogen. Agrobiologiia no.3:407-411 My-Je '62. (MIRA 15:10)

1. Belorusskiy nauchno-issledovatel'skiy institut plodovodstva, ovoshchevodstva i kartofelya, Minsk.
(POTATO ROT)

DOROZHKIN, N.A., prof.; IVANOV, O.A.; DZHIYEMBAYEV, Zh.T.; SHABLIOVSKIY, V.V.; KOZHAYEVA, K.

Zonal coordination conferences. Zashch.rast.ot vred.i bol. 7 no.4:59-62 Ap '62. (MIRA 15:12)
(Plants, Protection of--Congresses)

DOROZHKIN, N.A., akademik

"Potato late blight" by N.A. Naumova. Reviewed by N.A. Dorozhkin. Zashch. rast. ot vred. i bol. 7 no.9:61-62 S '62. (MIRA 16:8)

1. AN Belorusskoy SSR.
(Potato late blight) (Naumova, N.A.)

DOROZHKIN, N.A., akademik; STREL'SKAYA, O.Ya., kand.biolog.nauk

Economic effectiveness of controlling potato diseases. Zashch. rast. ot vred. i bol. 7 no.11:15-17 N '62. (MIRA 16:7)

1. Belorusskiy nauchno-issledovatel'skiy institut plodovodstva, ovoshchevodstva i kartofelya. 2. AN Belorusskoy SSR (for Dorozhkin).

DOROZHKIN, N.A., akademik, red.; POLYANSKAYA, A.M., kand. sel'-khoz. nauk, red.; AL'SMIK, P.I. red.; AMBROSOV, A.L., red., kand. sel'khoz. nauk; SYUBAROV, A.Ye., kand. biol. nauk, red.; BALOBIN, V.N., kand. biol. nauk; LAZARCHIK, K., red.

[Ways of increasing the yield of fruit and berry crops] Puti povysheniia urozhainosti plodovo-iagodnykh kul'tur. Minsk, Izd-vo "Urozhai," 1963. 210 p. (MIRA 17:6)

1. Belorusskiy nauchno-issledovatel'skiy institut plodovodstva, ovoshchevodstva i kartofelya. 2. Chlen-korrespondent Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk imeni V.I.Lenina (for Al'smik).

DOROZHKIN, N.A.; STREL'SKAYA, O. Ya.

Forms of phytophthora on tomato fruits. Dokl. AN BSSR 8 no. 3: 199-200 Mr '64. (MIRA 17:5)

1. Belorusskiy nauchno-issledovatel'skiy institut plodovodstva, ovoshchevodstva i kartofelya Ministerstva sel'skogo khozyaystva BSSR.

DOROZHKIN, N.A., akademik; STREL'SKAYA, O.Ya., kand. biolog. nauk

Phytophthora infection on tomatoes. Zashch. rast. ot vred. i bol. 9 no.9:14-15 '64. (MIRA 17:11)

1. Belorusskiy institut plodoovoshchevodstva i kartofelya, Minsk.
2. AN BSSR (for Dorozhkin).

AMBROSOV, Anton Lavrent'yevich; DOROZHKIN, N.A., akademik, red.; VORONETSKAYA, L.S., red.

[Virus diseases of potatoes and methods for growing healthy tubers] Virusnye bolezni kartofelia i metody vyrashchivaniia zdorovykh klubnei. Minsk, Urozhai, 1964. 198 p. (MIRA 18:5)
1. Akademiya nauk Belorusskoy SSR (for Dorozhkin).

DOROZHKIN, N.A.; SHUKANOV, A.S.

Hibernation of the causative agent of the downy mildew of sugar beets (Peronospora schachtii Fuchs) in White Russia. Dokl. AN BSSR 9 no.3:208-210 Mr '65. (MIRA 18:6)

1. Kafedra sistematiki rasteniy Belorusskogo gosudarstvennogo universiteta imeni Lenina.

KUDRYASHEVA, Zinaida Nikandrovna; DOROZHKIN, N.A., akademik, red.; KRUSHINSKIY, A.S., red.

[Ascomycetes; a methodological manual for correspondence students] Sumchatye griby (Ascomycetes); uchebno-metodicheskoe posobie dlia studentov-zaochnikov. Minsk, Izd-vo M-va vysshego, srednego spetsial'nogo i professional'nogo obrazovaniia BSSR, 1962. 53 p. (MIRA 18:9)

DOROZHKIN, N.A.; REMNEVA, Z.I.; STREL'SKAYA, O.Ya.

Anthracnose, a little-known tomato disease. Dokl. AN BSSR 9 no.10:702-704 O '65. (MIRA 18:12)

1. Laboratoriya immuniteta Belorusskogo nauchno-issledovatel'skogo instituta plodovodstva, ovoshchevodstva i kartofelya. Submitted May 25, 1965.

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 6, p 171 (USSR) SOV/137-57-6-10617

AUTHOR: Dorozhkin, N.K.

TITLE: Semi-automatic Hydraulic Sandblasting Machine for the Removal of Scale off Machine Parts (Gidravlicheskiy peskostruynyy poluavtomat dlya ochistki detaley ot okaliny)

PERIODICAL: Tekhnol. avtomobilestroyeniya, 1956, Nr 4, pp 54-55

ABSTRACT: A method for hydraulic sandblasting of small machine parts (P) with the aid of a semi-automatic (S) machine of new design has been proposed and introduced. As compared to conventional sandblasting, the novel method permits one to improve the working conditions, double the productivity, decrease considerably the amount of labor needed for the operation and, since the tumbling and drying operations of P are eliminated, to decrease the consumption of sand, compressed air, and steam. The S machine can be installed in the general production flowsheet. A description of the construction of the S machine is adduced. Sand and water in 1:1 proportion are loaded into the mixing tank. By means of a vane wheel a suspension is prepared which is fed by compressed air (under a pressure of

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2.5-3 atm) into a nozzle from which it is directed at the P being treated and cleans them. The cleansing procedure lasts 15-20 min. The suspended sand is returned into the mixing tank. After cleansing the P are treated with a 10% solution of calcined soda. The weight of a batch of P is 20-40 kg. Fresh batches of the mixture are added every seven days, the S machine working three shifts a day. An S machine which affords the automation of the processes of rinsing and unloading of P has been developed and is being built.

S.Sh.

S/137/62/000/001/060/237
A060/A101

AUTHORS: Kabel'skiy, I. M., Dorozhkin, N. N.

TITLE: New method for calibrating metallo-ceramic parts

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 1, 1962, 39, abstract 1G297 ("Poroshk. Metallurgiya", 1961, no. 3, 79-85, English summary)

TEXT: The various methods of calibrating metallo-ceramic parts are characterized. A calibration method is proposed, consisting in the use of a floating self-balancing plunger with spherical surface. This ensures the simultaneous calibration of the outer and the inner surfaces of bushings, the precision of the treatment when this method of calibration is used is raised up to class 2; the quality of the surface - up to class 8 - 9. The allowance in the calibration is spontaneously distributed between the outer and the inner diameters of the bushing. Under the simultaneous calibration of both diameters the clearance and allowance are assumed smaller than usually.

R. Andriyevskiy

[Abstracter's note: Complete translation]

Card 1/1

DOROZHKIN, N.N.; ABDULLAYEV, Ch.G.

Ceramic metal bearing with a plastic coating and a compensating container. Porosh. met. 5 no.10:56-60 O '65.
(MIRA 18:11)

1. Tsentral'nyy nauchno-issledovatel'skiy institut mekhanizatsii i elektrifikatsii sel'skogo khozyaystva, Minsk.

S/571/61/000/007/009/010
I048/I248

AUTHORS: Konovalov, Yo.G., and Dorozhkin, N.N.

TITLE: A new method for gauging ring-shaped parts

SOURCE: Akademiya nauk Belaruskay SSR. Fiziko-technicheskiy institut. Sbornik nauchnykh trudov. no.7. 1961. 184-189

TEXT: A new, simplified method for the fine adjustment of the internal and external diameters of cast, stamped, forged, or sintered metal parts, are described; the diameters are adjusted through plastic deformation alone, using a die for the external diameter and a floating, round-headed plunger for the internal diameter, on a 40-ton hydraulic press. The dies and plunger are made of a hardened ХВГ (KhVG) alloy (Cr-W-Mn), and their surfaces are finished to a high degree of smoothness. In experiments with sintered ring-shaped parts consisting of perlite + 10-15% ferrite (Brinell hardness 50-70 kg./sq.mm.) external diameters ranging from 34.12 to 34.26 mm. were adjusted to 33.94 to 33.98 mm. while internal diameters ranging from 16.95 to 17.03 mm. were adjusted to 16.98

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S/571/61/000/007/009/010
I048/I248

A new method for gauging...

to 17.00 mm., all in one one-step operation requiring 10-15sec. The operation increased the smoothness of the surface from Soviet standard grade 4-6 to 8-9. A machine for the gauging of pinions, using rotating dies for the teeth, is proposed. It is assumed that the use of mechanical vibrations during the process should improve the process and reduce the working pressures needed. There are 4 figures.

Card 2/2

L 3322-66 EWP(e)/EWT(m)/EPF(c)/EWP(i)/EWP(j)/T/EWP(t)/EWP(k)/EWP(z)/EWP(b)/
ACC NR: AP5026273 ETC(m) JD/WW/DJ/RM UR/0226/65/000/010/0056/0060

AUTHOR: Dorozhkin, N. N.; Abdullayev, Ch. G.

TITLE: Plastic-coated sintered bearing with a compensating oil reservoir

SOURCE: Poroshkovaya metallurgiya, no. 10, 1965, 56-60

TOPIC TAGS: roller bearing, plastic coating, wear material, antifriction bearing, lubrication

ABSTRACT: Porous sintered bearings fabricated by the powder-metallurgical method display the highly valuable ability to perform for a prolonged time span without additional lubrication, owing to the oil contained in their pores; hence also they often are termed self-lubricating bearings. However, their performance is satisfactory only if the characteristic product of PV is small; this is because the oil reserve of the porous bearing is small and may be entirely expended during the initial period of performance, and often even during the fitting period. To remedy this situation, and to increase the characteristic product of PV, the authors propose a new design of an inverted plastic-coated sintered bearing with a compensating reservoir assuring capillary self-regulation of lubricant supply (Fig. 1 of the Enclosure), with the following distinguishing features: to increase its wear resistance and load-carrying capacity, powdered-metal surface 2 is coated with a layer of plastic 1, with part of the surface, in the form of groove 4, remaining non-coated. The non-coated part 4

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L 5322-66

ACC NR: AP5026273

6

of powdered-metal surface serves as the channel for the admission of lubricant from compensating reservoir to the friction surface. The sintered base of the bearing consists of ZhG-2 (iron-graphite) material with a pearlitic structure, containing up to 20% ferrite and having a porosity of 20 ± 1%. Its 0.25-0.35 mm thick plastic antifriction coating consists of Kapron (Soviet nylon-like plastic) which was deposited on the sintered base in a fluidized bed. Tests of the performance of the new bearing in a friction machine with a revolving shaft established that the use of a bearing design combining a porous powdered-metal base with a plastic coating makes it possible to markedly increase the permissible characteristic product of PV and to assure a reliable performance of the bearing unit without replenishing the lubricant, owing to the availability of an oil store in the compensating reservoir. Orig. art. has: 3 figures.

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy institut mekhanizatsii i elektrifikatsii sel'skogo khozyaystva, Minsk (Central Scientific Research Institute of the Mechanization and Electrification of Agriculture)

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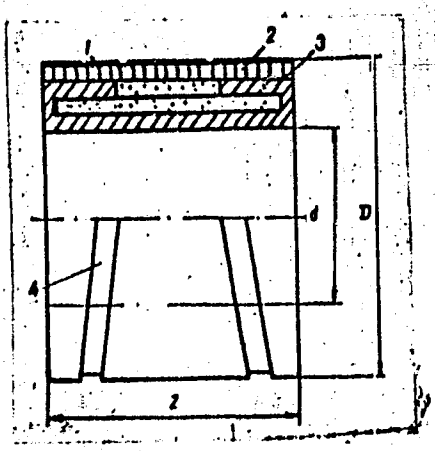

Fig. 1. Self-lubricating inverted plastic-coated sintered bearing with a compensating reservoir:

1 - plastic coating; 2 - sintered porous base; 3 - body with compensating reservoir; 4 - non-plastic-coated part of the sintered base

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AUTHORS: Mikishev, G.N. and Dorozhkin, N.Ya.

TITLE: Experimental investigation of free oscillations of liquids in vessels

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye tekhnicheskikh nauk. Mekhanika i mashinostroyeniye. no. 4, 1961, pp. 48 - 53

TEXT: Free damped oscillations of liquids are defined by two basic parameters: natural frequency ω (rad/sec) and damping coefficient δ. This article is an account of experimental investigations on determination of these parameters in relation to relative fluid depth, relative amplitude of oscillation, Reynolds number and surface tension. The choice of liquids and size of tanks was considered from the point of view of obtaining the widest range of Reynolds number. The liquids varied in viscosity from 0.38 - 1.8 centistokes and tank diameters were in the range of 200 - 1 500 mm. The wave propagation was achieved by standard means but oscillogram recordings were made with the use of a specially designed transmitting

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element. This element consisted of two metal plates which were lowered into the liquid and attached to the tank wall. For liquids which are good conductors the element reacted to the change in the active and capacitive components of conductivity, whilst in the case of liquids which are poor conductors the element constituted a flat condenser which changed its capacitance with fluctuations in liquid level. By virtue of its sensitivity (2 000 to 1 magnification on the oscillogram) the element could be used for almost any fluid. The damping coefficients were determined from the curves of free damped oscillations and natural frequencies were obtained from oscillograms. In the case of the flat-bottomed cylinder it was established that natural frequencies and damping coefficients were both independent of amplitude variations up to the value of $a_o = 0.1\, r_o$ and of fluid depth, for depth $h > r_o$. Natural frequencies showed hardly any variation with Reynolds number and were not influenced by surface tension for tanks of diameter over 100 mm; damping coefficients, however, whilst remaining independent of surface tension for tank diameters exceeding 400 mm, were for smaller

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sizes rising rapidly with the increase in surface tension. Damping coefficients were also shown to be a function of $R^{(-1/2)}$. This means that Reynolds number similarity must be considered when applying model results for prototypes. On the basis of experimental data the following empirical formulae may be used for calculations of damping coefficients:

$$\delta = \frac{0.451\pi}{\sqrt{R}}\left[\frac{1.3}{\text{sh } 1.84h/r_o}\left(\frac{1 + h/r_o}{\text{ch } 1.84h/r_o} + 1\right) + 4.09\right] \qquad (2.1).$$

For a fluid depth $h > r_o$ and smooth tanks, the above formula may be approximated to:

$$\delta = \frac{1.84\pi}{\sqrt{R}} \qquad (2.2).$$

A theoretical formula ($\delta = 1.3\pi/R^{1/2}$) obtained by B.I. Rabinovich and based on boundary-layer theory, gives

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